Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Texas

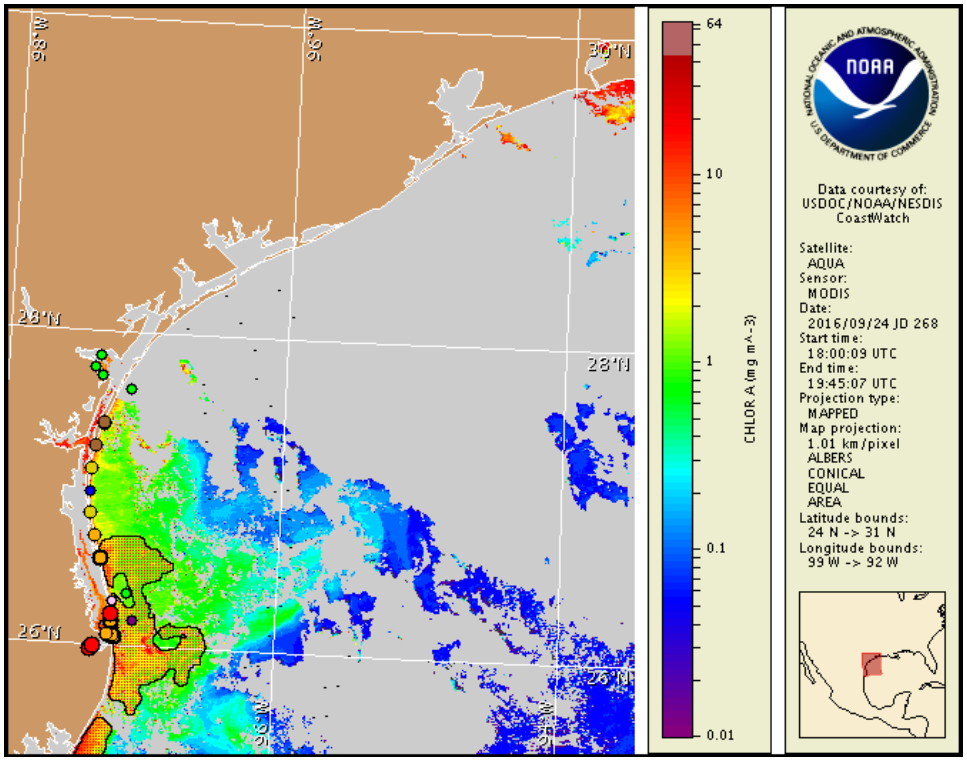
Monday, 26 September 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, September 22, 2016



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from September 16 to 23: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Texas Parks and Wildlife Department. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/hab_publication/habfs_bulletin_guide.pdf

Detailed sample information can be obtained through the Texas Parks and Wildlife Department at:

http://www.tpwd.state.tx.us./landwater/water/environconcerns/hab/redtide/status.phtml

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To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive:

http://tidesandcurrents.noaa.gov/hab/bulletins.html

Conditions Report

Karenia brevis (commonly known as Texas red tide) ranges from not present to high concentrations along the Texas coast in the Port Aransas/Mustang Island to Rio Grande regions. *K. brevis* concentrations are patchy in nature and levels of respiratory irritation will vary locally based upon nearby bloom concentrations, ocean currents, and wind speed and direction. The highest level of potential respiratory irritation forecast for Monday, September 26 through Thursday, September 29 is listed below:

County Region: Forecast (Duration)
Aransas Pass to PINS region: Low (M-Th)
Padre Island National Seashore region: Moderate (M-Th)
Mansfield Pass to Beach Access 6 region: Moderate (M-Th)
Beach Access 6 to Rio Grande region: High (M-Th)
Bay region-Lower Laguna Madre to Laguna Vista: High (M-Th)
All Other Texas Regions: None expected (M-Th)

Check http://tidesandcurrents.noaa.gov/hab/beach_conditions.html for recent, local observations. Over the past few days, reports of dead fish have been received from the Lower Laguna Madre to Laguna Vista bay region and alongshore the Beach Access 6 to Rio Grande region. Reports of respiratory irritation have been received from the Padre Island National Seashore and Beach Access 6 to Rio Grande regions.

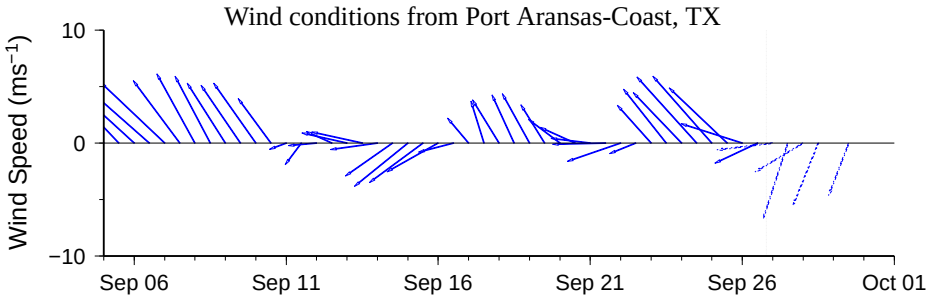
Analysis

Karenia brevis concentrations range between 'not present' and 'high' along the Texas coast (TPWD; 9/21-23). In the Aransas Pass to Padre Island National Seashore (PINS) region, sampling from the Texas A&M University's Imaging FlowCytobot, located on the Port Aransas ship channel, indicates that *K. brevis* concentrations have decreased to between 'not present' and 'background' from 'very low a' (TAMU; 9/22-26). Along the PINS region, samples collected between the Malaquite Visitor Center and mile marker 60 indicated *K. brevis* concentrations range between 'low a' and 'high' with the highest concentration located along the southern end of PINS at mile marker 60 (TPWD; 9/23). In the Lower Laguna Madre to Laguna Vista Bay region, recent sampling indicated up to 'medium' *K. brevis* concentrations with the highest sample collected at the west end of Queen Isabella Causeway (TPWD; 9/22-23). Alongshore the Beach Access 6 to Rio Grande region, recent sampling indicates *K. brevis* concentrations range between 'medium' and 'high' with the highest sample detected at the Brazos Santiago Jetty (TPWD; 9/22-23). Detailed sample information and a summary of impacts can be obtained through Texas Parks and Wildlife Department at: http://www.tpwd.state.tx.us./landwater/water/environconcerns/hab/redtide/status.phtml. For information on area shellfish restrictions, contact the Texas Department of State Health Services.

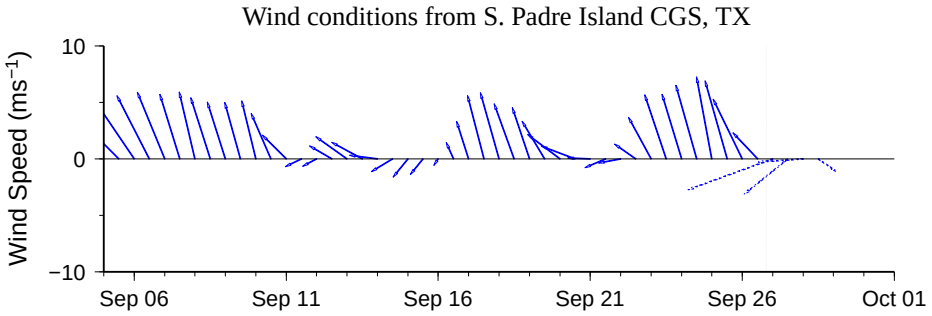
Recent MODIS Aqua imagery (9/24; shown left) is completely obscured by clouds along the Texas coast from Sabine Pass to Mustang Island, limiting analysis. Patches of elevated to very high chlorophyll (2 to >20 μg/L) are visible along- and offshore from Padre Island National Seashore to approximately 120 km south of the Rio Grande. Along the Texas coast, chlorophyll appears to be highest from Mansfield Pass to the Rio Grande and extending up to 65 km offshore. Continued sampling of this region is recommended.

Forecast models based on predicted near-surface currents indicate a maximum transport of 40 km south from the Port Aransas region, 30 km south from PINS Mile Marker #15, and 30 km north from Brazos Santiago Pass from September 24-29.

Davis, Kavanaugh



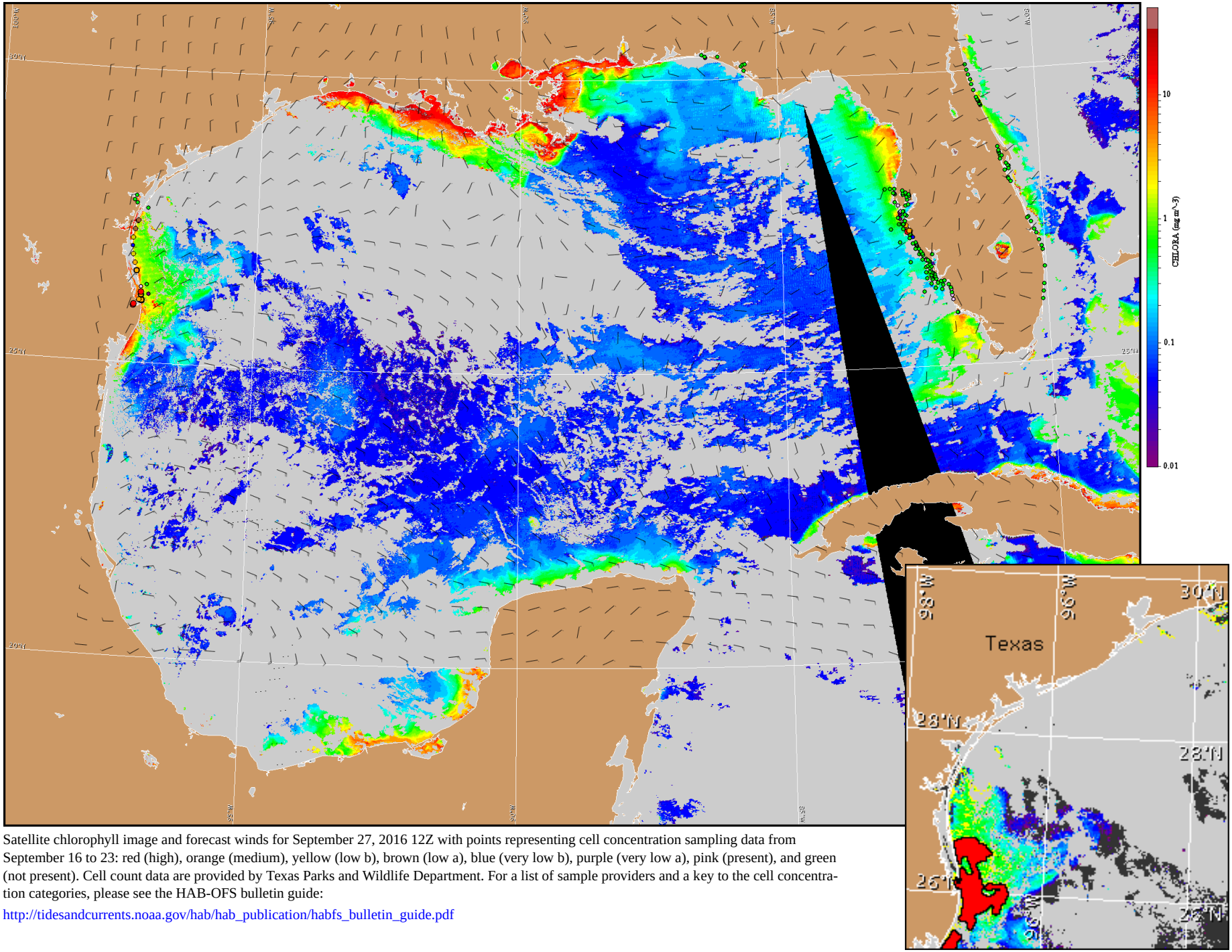
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).



Wind Analysis

Baffin Bay to Port Aransas: Northeast winds (10-15kn, 5-8m/s) this afternoon through tonight. North winds (10-15kn) Tuesday becoming northeast winds (5-15kn, 3-8m/s) Tuesday evening through Thursday night.

Baffin Bay to Port Mansfield: Northeast winds (9-17kn, 5-9m/s) today through Thursday night.



Satellite chlorophyll image and forecast winds for September 27, 2016 12Z with points representing cell concentration sampling data from September 16 to 23: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Texas Parks and Wildlife Department. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

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Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).